

WHAT IS CLAIMED IS:

1. A method of communicating a fax message via a computer network, the method comprising:

receiving the fax message by a server having at least one dial-up modem;
5 determining availability of the dial-up modem; and
 sending the fax message via the dial-up modem to a receiver.

2. The method of Claim 1, further comprising storing the fax message at the server.

3. The method of Claim 1, further comprising reserving an available dial-up 10 modem for transmitting the fax message to the receiver.

4. The method of Claim 1, wherein determining availability of the dial-up modem comprises identifying the active or inactive state of the dial-up modem.

5. The method of Claim 1, wherein determining availability of the dial-up 15 modem is performed periodically at predetermined times, or at start-up of the server, or after the modem is removed or another modem is added.

6. The method of Claim 5, further comprising saving the active or inactive state of the dial-up modem in a memory.

7. The method of Claim 1, further comprising queuing the fax message for sending at a later time if there is no dial-up modem available for immediate sending.

20 8. The method of Claim 7, wherein queuing the fax message includes waiting for a period of time that is based upon at least one characteristic of the load upon the dial-up modem.

9. The method of Claim 1, further comprising sending a transmittal report to a transceiver having originated the fax message.

25 10. The method of Claim 1, wherein sending the fax message includes sending the fax message to a receiver that is physically located in the local-toll area of the server.

11. The method of Claim 1, wherein receiving the fax message includes handling the fax message according to the T.37 standard.

30 12. The method of Claim 1, wherein receiving the fax message includes receiving the fax message via the Internet.

13. A system for communicating a fax message via a computer network, the system comprising:

means for receiving the fax message, wherein the receiving means is in communication with at least one dial-up modem;

5 means for determining availability of the dial-up modem; and

means for sending the fax message via the dial-up modem to a receiver.

14. The system of Claim 13, further comprising means for storing the fax message at the receiving means.

15. The system of Claim 13, further comprising means for reserving an available dial-up modem for transmitting the fax message to the receiver.

16. The system of Claim 13, further comprising means for queuing the fax message for sending at a later time if there is no dial-up modem available for immediate sending.

17. A program storage device storing instructions that when executed by a computer performs the method comprising:

receiving the fax message by a server having at least one dial-up modem;
determining availability of the dial-up modem; and
sending the fax message via the dial-up modem to a receiver.

18. The program storage device of Claim 17, wherein the method further comprises reserving an available dial-up modem for transmitting the fax message to the receiver.

19. The program storage device of Claim 17, wherein the method further comprises queuing the fax message for sending at a later time if there is no dial-up modem available for immediate sending.

20. The program storage device of Claim 19, wherein queuing the fax message includes waiting for a period of time that is based upon at least one characteristic of the load upon the dial-up modem.

21. A method of communicating a fax message via a computer network, the method comprising:

30 transmitting a fax from a first fax transceiver to a first server;

forwarding of the fax by the first server, via a computer network, to a second server having a plurality of dial-up modems;

receiving and storing the fax at the second server;

determining availability of each of the dial-up modems;

queueing transmission of the fax for a period of time, and determining availability of each of the dial-up modems upon expiration of the time period, if none of the dial-up modems is available;

sending the fax via a selected one of the dial-up modems, determined to be available, to a second fax transceiver, wherein the second fax transceiver is physically located in the same local-toll area, of a public telephone network, as the second server.

22. The method of Claim 21, wherein receiving and storing includes processing the fax message according to the store-and-forward protocol.

23. The method of Claim 21, further comprising the act of reserving an available dial-up modem for sending the fax.

24. The method of Claim 21, wherein queueing transmission of the fax includes waiting for a period of time that is based upon at least one characteristic of the load upon the dial-up modem.

25. A program storage device storing instructions that when executed by a computer performs the method of communicating a fax message via a computer network, the method comprising:

transmitting a fax from a first fax transceiver to a first server;

forwarding of the fax by the first server, via a computer network, to a second server having a plurality of dial-up modems;

receiving and storing the fax at the second server;

determining availability of each of the dial-up modems;

queueing transmission of the fax for a period of time, and determining availability of each of the dial-up modems upon expiration of the time period, if none of the dial-up modems is available;

sending the fax via a selected one of the dial-up modems, determined to be available, to a second fax transceiver, wherein the second fax transceiver is

physically located in the same local-toll area, of a public telephone network, as the second server.

26. The program storage device of Claim 25, wherein receiving and storing the fax message includes processing the fax message according to the store-and-forward protocol.

5 27. The program storage device of Claim 25, wherein the method further comprises the act of reserving an available dial-up modem for sending the fax.

10 28. The program storage device of Claim 25, wherein queuing the fax comprises waiting for a predetermined period of time that is based upon at least one characteristic of the load upon the dial-up modem.

29. A system for communicating a fax message via a computer network, the system comprising:

15 a server that is configured to receive the fax message, wherein the server is in communication with the computer network;

at least one dial-up modem, in communication with the server, configured to send the fax message to a receiver; and

a communication link for delivery of the fax message to the receiver.

30. The system of Claim 29, wherein the server executes a fax handling process, comprising:

20 receiving the fax message by the server;

storing the fax message in a memory;

determining the availability of the at least one dial-up modem; and

sending the fax message via the dial-up modem to a receiver.

31. The system of Claim 29, wherein the communication link comprises a 25 public switched telephone network, a conventional telephone link, a fiber optic link, or a wireless link.

32. The system of Claim 29, wherein the receiver is physically located in the local-toll area of the server.

33. The system of Claim 29, wherein the computer network is the Internet.

30 34. A system for communicating a store-and-forward fax message via a computer network, the system comprising:

a server that is configured to receive the fax message, wherein the server is in communication with the computer network;

a plurality of dial-up modems, in communication with the server, configured to send the fax message to a receiver;

5 a module executing in the server for processing the fax, wherein processing the fax comprises:

storing the fax in a memory;

determining the availability of each dial-up modem in the plurality dial-up modems;

10 queuing the fax for later delivery if none of the dial-up modems is available; and

sending the fax message via one of the dial-up modems to a receiver; and

a communication link for delivery of the fax message to the receiver.

15 35. The system of Claim 34, wherein the receiver is physically located in the local-toll area of the server.

 36. The system of Claim 34, wherein the communication link comprises a public switched telephone network, a conventional telephone link, a fiber optic link, or a wireless link.

20 37. The system of Claim 34, wherein the computer network is the Internet.

 38. A system for communicating a store-and-forward fax message via a computer network, the system comprising:

means for receiving the fax message, wherein the receiving means is in communication with the computer network;

25 means for processing the fax, wherein processing the fax comprises:

storing the fax in a memory;

determining the availability of at least one dial-up modem;

queueing the fax for later delivery if the at least one dial-up modems is unavailable; and

30 sending the fax message via the at least one dial-up modem; and

means for delivering the fax message to a receiver;

39. The system of Claim 38, wherein the receiver is physically located in the local-toll area of the receiving means.

40. The system of Claim 38, wherein the delivering means comprises a public switched telephone network, a conventional telephone link, a fiber optic link, or a
5 wireless link.

41. The system of Claim 38, wherein the computer network is the Internet.